

Amendments to the Claims

Claims 1-20 (canceled)

21. (new) In semiconductor manufacture, an apparatus for attaching an adhesive-film strip, supplied from a length of adhesive film that comprises an adhesive portion and a coverlay portion adhering to the adhesive portion, to a support element, the apparatus comprising:

a support-element-feeder portion situated and configured to provide a support element;

an adhesive-film-attachment portion comprising a displaceable block;

a cutting blade situated relative to the block;

an adhesive-film-drive mechanism situated and configured to advance the length of adhesive film to the adhesive-film-attachment portion to place a desired portion of the adhesive film on the block; and

a coverlay-removal mechanism coupled to the adhesive-film-drive mechanism and configured to remove the coverlay portion from the desired portion of the adhesive film in synchrony with the adhesive-film-drive mechanism placing the desired portion of the adhesive film on the block;

wherein displacement of the block a first distance causes the cutting blade to cut the adhesive-film strip from the length of adhesive film, and displacement of the block a second distance applies the cut adhesive-film strip to the support element provided by the support-element-feeder portion.

22. (new) The apparatus of claim 21, wherein:

the support element defines a wire-bond slot; and

the adhesive-film-attachment portion and the support-element-feeder portion are configured to attach the adhesive-film strip to the support element such that the adhesive-film strip covers from about 70% to about 98% of the wire-bond slot.

23. (new) The apparatus of claim 21, wherein:

the support element defines a wire-bond slot; and

the adhesive-film-attachment portion is configured to cut the adhesive-film strip to a size for covering from about 70% to about 98% of the wire-bond slot.

24. (new) The apparatus of claim 21, further comprising a film guide for guiding the adhesive film into the adhesive-film-attachment portion.

25. (new) The apparatus of claim 21, further comprising an adhesive-film-storage portion for providing the length of adhesive film.

26. (new) The apparatus of claim 25, wherein the adhesive-film-storage portion comprises a reel on which the length of adhesive film is wound.

27. (new) The apparatus of claim 21, wherein:
the adhesive-film-drive mechanism comprises a drive-wheel assembly comprising a first push wheel and a second push wheel;
the length of adhesive film comprises a first side and a second side; and
the first push wheel is in engagement with the first side and the second push wheel is in engagement with the second side as the adhesive film passes through the drive-wheel assembly to the adhesive-film-attachment portion.

28. (new) The apparatus of claim 27, wherein at least one of the first push wheel and the second push wheel is pressed by a spring into engagement with the length of adhesive film.

29. (new) The apparatus of claim 27, wherein the coverlay-removal mechanism separates the coverlay portion from the adhesive portion after the adhesive film passes through the pinch-wheel assembly.

30. (new) The apparatus of claim 29, wherein:
the first side comprises the coverlay portion;
the second side comprises the adhesive portion;

the coverlay-removal mechanism comprises a pinch-wheel assembly comprising a pinch roller engaged with the first push wheel; and

the coverlay portion is removed from the adhesive portion by rotation of the first push wheel and consequent rotation of the pinch roller.

31. (new) The apparatus of claim 30, where the removed coverlay portion is pinched between and is pulled by a friction force established between the rotating first push wheel and pinch roller.

32. (new) The apparatus of claim 30, wherein the coverlay-removal mechanism further comprises an idler assembly comprising an idler roller engaged with the coverlay portion as the coverlay portion is being removed from the adhesive portion and passing to the pinch roller and first push wheel.

33. (new) The apparatus of claim 32, wherein the idler roller exerts a variable pressure on the coverlay portion as the coverlay portion is being removed from the adhesive portion.

34. (new) The apparatus of claim 33, where the idler assembly further comprises a spring situated and configured to presses the idler roller into engagement with the coverlay portion.

35. (new) The apparatus of claim 21, wherein the adhesive-film-attachment portion further comprises a piston operably coupled to the block so as to displace the block the first and second distances.

36. (new) The apparatus of claim 21, wherein the block defines a vacuum passage situated and configured to hold the desired portion of the adhesive film on the block by vacuum pressure.